



VARSITY-ALUMNI GAME TODAY

ANNUAL CONCERT BY TECH MUSICAL CLUBS NEXT WEEK

Most Students to Hear Armour Organ for First Time

PLAN NOVEL PROGRAM

The outstanding musical program of the fall semester will be given at the annual Christmas Concert by the Glee Club, Orchestra, and Stress and Strains on Thursday, December 18 at 10:30 in the Assembly Hall.

The Glee Club, under the direction of Dr. Daniel Protheroe, will give a program of eight numbers, of which "Passing By" and the "Winter Song" are features.

The orchestra, in addition to other numbers, will present a medley of Christmas carols.

The Stress and Strains will also be represented on the program.

A baritone solo by G. H. Burhop, an oboe solo, and an organ solo by H. E. Chandler will be some of the striking novelties. The organ solo will consist of several Christmas carols. The Armour organ has not been played for an assembly in many years and hearing it will be worth while.

The program is being arranged by the officers of the Armour Tech Musical Clubs who are as follows: President, W. A. Schrader, '31. Vice President, F. O'Connor, '31. Secretary, F. F. Strassenburg, '31. Treasurer, A. Weston, '32. Business Manager, E. W. Carlton, '32.

Science Lecture Impresses A. I. T.

The special assembly held on Wednesday, November 25, proved to be of the utmost interest to everyone. This is the first time that a demonstration and lecture of this nature was given to Armour students. Dr. Phillips Thomas, the lecturer, held the attention of the embryo engineers to the last moment. Through his affiliation with the Westinghouse Company, Dr. Thomas has studied, made research and has aided in the perfection of the grid glow tube which has made possible many new processes and tests.

Among the highlights of the demonstrations were powerful discharges of artificial lightning, perfect synchronization of bulb flashes with a fan revolving at the rate of four thousand r. p. m., and Rastus Robot, the mechanical man. The entire audience was well pleased and Dr. Thomas was busy answering questions for an hour after the lecture.

Turn-Out At Party Reduced By Weather

Only sixteen members were present at the smoker and card party held by the Campus Club on Tuesday evening, November 25. On account of the inclement weather there were not as many present as were expected.

There were more than plenty of sandwiches since arrangements were made for about twice as many men. The main attraction of the evening was a gigantic piggy game, in which honors went to Alexis Sokoloff. He took his paddling like a man. Jack Cavanagh and Jim Clear, self-styled pinocle beginners, gave a lesson to the Georges Moore and Bonvallet.

The evening's entertainment ceased at about 10:30 o'clock.

Honoraries Planning Banquet for Dec. 19

Plans are being made for a joint initiation banquet on Friday, December 19, to be sponsored by five of the honorary fraternities at Armour. The chapters included in the arrangements at the present time are Tau Beta Pi, engineering fraternity; Pi Tau Sigma, mechanical engineering fraternity; Phi Lambda Upsilon, chemical fraternity; Chi Epsilon, civil fraternity, and Salamander, fire protection fraternity.

The place has not been definitely decided upon, but Charles Link and Fred Attwood, who are in charge of the affair, will make arrangements the early part of this week. Faculty and alumni members of all these fraternities are invited.

The tentative program includes in addition to the food, several reels of motion pictures and a talk by a prominent Chicago engineer.

Alpha Chi Sigma Plans Initiation

Six members of Flask and Beaker fraternity attended a dinner given by the Northwestern University chapter of Alpha Chi Sigma at the Evanston Y. M. C. A. on Thursday, December 4.

Arrangements were made for the installation of Alpha Psi chapter at Armour, on Saturday, December 13. The ceremonies will take place in the Armour Mission building in the afternoon and evening under the direction of the members of the Upsilon chapter of Northwestern. Members of the Chicago professional chapter will also be present, and delegates from other nearby collegiate chapters.

This will be the third chapter of the national chemical fraternity, Alpha Chi Sigma, to be installed in the Chicago region.

Rifle Team Humbles Boston Tech in Meet

The Rifle Team beat the team representing the Massachusetts Institute of Technology in a postal meet, held last week by the score of 1839 to 1827. The boys on the team were inspired in shooting against our old rivals with the results shown above. The targets turned in by all the men on the team showed a marked improvement over those turned in at the beginning of the season.

The series of matches against the New York Stock Exchange was lost to the New Yorkers by a slight margin. One of the decisive meets of the series was held during the week before the Thanksgiving holidays.

(Continued on page three)

Glee Club to Sing at Architects' Club

The Armour Glee Club, under the direction of Dr. Daniel Protheroe, will give a repetition of its Christmas concert program at the Architects' Club of Chicago on Friday evening, December 19. The club was asked to sing by Mr. Pariva, '18, who is chairman of the Architects' entertainment committee.

A banquet followed by entertainment will constitute the social gathering of the members of the Architectural organization. In addition to the Armour Glee Clubs' contribution to the latter, several professional vaudeville stunts and numbers by well known radio stars will be given.

Glee Club members have been invited to the banquet and are to give their program at 10:00 p. m. The address of the Architects' Club is 1801 Prairie Ave.

Five Men Given Salamander Keys

On last Wednesday evening, December 3, Salamander, the honorary Fire Protection engineering fraternity, held initiation ceremonies at the Delta Tau Delta House. The formal rites were conducted for the following:

- H. S. Holt.
- F. M. James.
- F. W. Spalding.
- P. H. Kesselring.
- W. M. Trauten.

Professors Finnegan, Holmes and Robinson, Mr. J. V. Parker, and Mr. Fitzhugh Taylor assisted in the proceedings.

F. P. E. Society Hears Underwriting Talk by Insurance Examiner

"The Principles of Underwriting" was the subject of the address given by Mr. R. H. Peterson, western examiner of the Springfield Fire and Marine Insurance Company, at the meeting of the F. P. E. society held in Science Hall at 9:30 last Friday morning. About sixty students were present at the meeting, that number being nearly one hundred percent of those eligible.

Mr. Peterson spoke in detail on the various major conditions to be considered in deciding whether or not to insure any certain plant or piece of property. According to the speaker, one of the most important considerations is the character and efficiency of the manager of the property to be insured. A man of indecisive character cannot maintain the proper carefulness among his employees, thus appreciably increasing the danger of fire.

The so-called "housekeeping" conditions of the plant and the type of manufacturing done there were also mentioned as important factors in determining the desirability of the risk. By "housekeeping" conditions is meant the cleanliness and tidiness of the plant in general.

The size of the plant is often a determining factor, since an insurance company cannot accept as a risk, a plant the loss of which would seriously cripple the resources of the insurance company.

In closing, Mr. Peterson spoke of the presence of nearby fireproof buildings as a condition which would tend to make an acceptable bid of one that would otherwise be unattractive.

Fall A. I. E. E. Smoker Set for Wednesday

All members of the Armour branch of the A. I. E. E. are invited to attend a novel smoker to be given Wednesday evening, Dec. 10, at 8 P. M., at the Sigma Kappa Delta house, 3344 S. Michigan Ave. The social committee has been making extensive preparations to make this a pleasant and eventful evening. The talent for the program has been drawn from the electrical department and one of the features of the evening is to be a song and ukulele act by one of the men of the senior electrical class. Features equally as interesting are scheduled.

Eta Kappa Nu Gives Candidates Quizzes

Eta Kappa Nu, honorary electrical engineering fraternity, had an Inquisition Smoker last Wednesday evening at the Beta Psi house, 3327 S. Michigan Ave.

The following pledges were examined on electrical and other subjects which were of interest to the actives are: T. B. O'Connor, E. J. Stehno, E. E. Paschke, M. E. Lukey, D. M. Fetterman, M. Fagen, W. Krahl.

There were about twelve alumni present from Armour and other institutions. Later in the evening it was demonstrated that pledges make good waiters. The informal initiation of these men will take place soon.

Twenty-Three Men Order Senior Jackets

To date only twenty-three men have ordered and been measured for their senior jackets, according to R. N. Wilson, chairman of the committee, although about one hundred men indicated their intention of doing so.

The committee is trying to arrange with Rexford and Kelder Co., tailors, for a second day on which men may be measured for their jackets. The date will be announced both in the News and on the bulletin board as soon as possible.

All seniors who wish to order jackets are urged to speak to any of the members of the committee and to be measured on the day to be announced later.

Football, Topic of Schommer's Speech

Professor Schommer addressed the Mid West Chamber of Commerce at the Mid West Athletic Club, Friday noon, November 28. Having received three major letters in football when he attended the University of Chicago, he refereed many of the major games of the country. Professor Schommer was quite capable of giving an authoritative and interesting address on "Football."

Orders Being Taken for White Trousers

Orders for white flannel trousers, to be worn by members of the Armour Musical Clubs at their Annual Christmas Concert, are being taken by the business manager, E. W. Carlton, '32.

The trousers are gotten through the school and the men of the musical organizations pay one-half the cost price. The wearing of white in combination with a dark blue or black coat is the customary dress for concerts given by the Armour Musical Clubs.

Announcement as to when tailor representatives will be at school to take measurements will be made on the bulletin board. Additional information may be obtained from the business manager.

ANNUAL BASKETBALL BATTLE TO PRECEDE HONOR 'A' DINNER; FORMER TECH STARS COMPETE

Intense Practice in Past Weeks Gives Regulars Advantage in Scrap at Eighth Regiment Armory

FIRST WHISTLE TO BLOW AT 4:30 O'CLOCK

Juniors to Sell Dance Bids Soon

Friday, January 16th, has been decided upon as the date for the Junior Informal. Although neither a definite place nor an orchestra have been chosen yet, it is definitely known that bids will be out before the Christmas holidays. The social committee, headed by J. J. Casey, C.E. '32, is planning to make this a memorable dance. The other members of the committee:

- R. J. Waindle.
- A. J. Jungels.
- G. W. Schodde.
- J. E. Bryant.

Senior Biographies Must Be in Friday

It is imperative that all senior biographies be in the Cycle box by noon, Friday, December 12th. In order that the Cycle may compile its records, each senior is urged to cooperate to the fullest extent. Cooperation on the part of the individual seniors will facilitate the handling of these vital statistics. G. W. Schodde will also take the biographies.

Press Club to Enroll Members

Men who are literary minded and who desire to join the Press Club should see Dick Keilner, the treasurer of the organization, and sign up. Dues are fifty cents a semester.

The Press Club was revived recently to provide an organization whose purpose is to stimulate interest among the students for the school's various publications. Men who have served on the staffs of high school publications are particularly welcome.

Orchestra Rehearses for Winter Concert

The orchestra is practicing diligently and late these days in preparation for their annual winter concert. They are meeting more frequently in order that they may present a finished program to the students when they play a week from Thursday.

Freshman Injured in Gym Basketball Game

Anthony J. Norgie, '34 C. E., was injured during a basketball game in the local gym Monday, December 1. His collar bone was knocked out of its normal position and a blood vessel was broken.

He was immediately taken to Mercy Hospital, from which he is expected to leave tomorrow afternoon.

A meeting of the Honor "A" Society was held yesterday at 2:00 p. m. The principal item of business at this meeting was a detailed discussion and the formation of plans for the annual athletic banquet.

Alumni Basketeers will again be the guests of Tech varsity in the annual Alumni-Varsity basketball game to be played this evening at the Eighth Regiment Armory, at 35th street and Giles avenue.

The game is scheduled to begin at 4:30 p. m., and is the introduction to the Honor "A" banquet which immediately follows the tilt. The banquet will be at 7 p. m. at the New Southern Hotel, 20th street and Michigan avenue.

The game will "break the ice" for the 1930-31 basketball season. The Varsity is expected to be victorious, if precedence can be relied upon. The chief factor of this prediction is that they will be in the pink of condition, while the Alumni will be more or less rusty. A team that has worked together for several weeks in practice is usually a machine which clicks more smoothly in regards to snappy passing and floor work.

The Alumni triple threat men are Captain William Downes, Victor Hofer, and W. Kuffel. They were present in last year's game, which was won by the regulars, 37 to 17.

Last year's captain was Otto Kuehn, who played at left forward. King Simpson, noted Armour athlete and seven-letter man, will also appear in the Alumni line-up. Downes and Kuehn are official referees, but neither will act in this capacity tonight. Clint Osborn will be the arbiter for tonight's game.

At any rate, it isn't safe to say that history will repeat itself and it may be predicted that no matter what the outcome, a treat is in store for all concerned, including the Honor "A" pledges who will be present.

A tentative line-up which is subject to revision has been obtained from the captains of the teams and is listed below. The Varsity will probably be represented by several substitute combinations, and some of the new men may be given an initial tryout in this evening's game.

TENTATIVE LINE-UPS

Alumni	
Downes.....	Right Forward
Simpson.....	Left Forward
Kuffel.....	Center
Hofer.....	Right Guard
Manz.....	Left Guard
Varsity	
Robin.....	Right Forward
Ott.....	Left Forward
Rossing.....	Center
Rutkowski.....	Right Guard
Gustafson.....	Left Guard

Substitutes for the Alumni are: Shoemaker, Yount, Ahlbeck, Johnson, Brady, Erickson and Kuehn.

Truss Club Sponsors Dance; Two Pledged

A house dance was held on Friday, November 28, 1930, by the Truss Club. The affair was attended by faculty, alumni, actives, pledges, and friends, and was a pronounced success. Mr. and Mrs. E. C. Grafton and Mr. and Mrs. G. J. Taylor were the chaperones.

The Truss Club has pledged the following two men:
Charles F. Lewis, '33, M.E.
Boleslaus W. Job, '33, E.E.

There will be a meeting of the Interfraternity Council tomorrow at 2:00 p. m. in the Tau Beta Pi rooms.

CALENDAR	
Tuesday, Dec. 9	
4:30	Alumni-Varsity Basketball Game at the Armory, 35th St. and Giles Ave.
5:00	Orchestra Rehearsal.
7:00	Honor "A" Banquet at the New Southern Hotel.
Wednesday, Dec. 10	
2:00	Interfraternity Council meeting in the Tau Beta Pi rooms.
Thursday, Dec. 11	
4:30	Chicago Tech vs. Armour in basketball at the Armory.
5:00	Phi Kappa Sigma vs. Sigma Alpha Mu in the gymnasium.
5:00	Sigma Kappa Delta vs. Kappa Delta Tau in the gymnasium.
Friday, Dec. 12	
12:00	Dead line for senior biographies for the Cycle.
5:00	Triangle vs. Theta Xi in the gymnasium.
5:00	Delta Tau Delta vs. Phi Pi Phi in the gymnasium.
Saturday, Dec. 13	
	Installation of Alpha Psi Chapter of Alpha Chi Sigma in Mission Building.

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A PERSONAL MATTER

It is not the purpose of this article to argue the values or detriments of the prohibition law, nor is its purpose to preach against drinking, but merely to bring to your attention some facts which struck the author as being good common sense. The extracts contained below are taken from an article in *The International Student* by Henry Louis Smith, former President of Washington and Lee University.

Dr. Smith believes the answer to the liquor problem is not in legislative action, but rather in the personal attitude of the individual toward the benefits he will derive from drinking alcohol. Dr. Smith is supported in this view by a great number of leading educators.

"Five glorious assets enable you to rise above the brute," states the article. "The first is your God-given intellect, your power to comprehend, reason, analyze, predict, invent; your ability to plan, organize, construct, transform, create. The first touch of alcohol poisons and benumbs your brain. Drinking alcohol turns a human being into a babbling idiot, a brainless imbecile, a helpless and senseless log in human form and often into an uncontrolled brute, the helpless prey of animal impulses.

"A second asset is your marvelous body, a complex engine whose abounding health and buoyant vigor and vitality make every day's experience a fresh delight. The first touch of alcohol makes a man's body a crippled machine. Alcohol is the direct cause of the degenerative diseases which wreck so many drinkers when they reach middle age. . . . Every athlete knows that alcohol ruins all chance of victory in athletic contest. . . . Alcohol is a fatal poison to your body."

The last asset which Dr. Smith says is lost through alcohol is our trained ability to master the forces of nature and harness them for our use. In other words, the work of the engineer is impossible when the brain has been numbed by alcohol.

The writer agrees with Dr. Smith in his belief that the drinking question is purely a personal matter, and the abolition of drinking lies not in the passing of laws, but in the education of the individual in the effects of alcohol on him. F. B. A.



"The Slipstick"

Cleave to "The Slipstick"; let the Slapstick fly where it may.

To Whom It May Concern

It is not so hard to get back to work,
And the routine of the day,
After four whole days of leisure and rest,
With Christmas on the way.

Only three more weeks to let slide reports
That we plan to make up then.
But, Oh my! how fast those two weeks depart,
And we're back in school again.

So here is the moral of this piece of verse:
To enjoy your recess more,
Keep going on that daily work instead
Of loafing just before.

F. F. S.

Cry of the profs: "They shall not pass."

After terrific struggles, the freshman finally finished his examination paper, and at the end, wrote:
"Dear Professor: If you sell any of my answers to the funny papers, I expect you to split fifty-fifty with me." E. K.

In the physics laboratory the other day the following ensued:

O. L. (running around wildly): "I want a graduate! I want a graduate!"
J. D. (in other room): "Shut up! That's nothing. We all do." Dutch.

Al says that an adult is a person who has stopped growing at both ends and started growing in the middle.

BANG! SHOOT HIM!

Professor (in chemistry class): "Suppose a man in a hospital woke up around two o'clock in the morning and wanted some hot water. All that he had was a match. How could he get the hot water?"
Student: "I guess he'd have to light the match and then heat the spring in the bed."

Professor: "I take great pleasure in giving you 'C' in mathematics."
Student: "Make it 'A' and enjoy yourself!"

THE DONOR

Though he was very poor indeed
He gave to every one,
He gave when there appeared no need,
As he had always done.

Despite this generosity
His colleagues once or twice
Refused his offerings—you see,
He only gave advice. Eddie.

IT PAYS TO ADVERTISE

(Sign Along Road)
For Hot Springs Try the Illinois Central

"How come?" said McTavish; "Where's the other boy?"
"Him and me tossed up to see who'd caddy for you," said the boy.
"Oh," much impressed with the apparent honor, "and so ye won, did ye laddie?"
"No, indeed," said the boy, "I lost." A.B.A.

PAGE THE ELECTRICALS

According to Prof. Bentley, the following item once appeared in an inventory sheet of the Institute:
One 10 Gallon Stone Galvanometer
Probably a relic of the instruments used in the stone age. Freddie.

Murphy had been careless in handling the blasting powder in the quarry and Duffey had been deputed to break the news gently to the widow.

"Mrs. Murphy," said he, "isn't it today the fellow calls for the weekly payment for Murphy's life insurance?"

"It is," answered Mrs. Murphy.
"Well, now, a word in your ear," said Duffey. "Sure ye can snap your fingers at the fellow today."

UNDOUBTEDLY

"Say, boy," a colored convict inquired of his new cell-partner, "when does you-all go out?"
"De fust," was the reply.
"Sho nuff?" was the envious response. "De fust ob what?"
"De fust chance Ah gets."

Extract From Student Semester Theme
"Huckleberry Finn was the one and only son of Mr. and Mrs. Finn, the relatives of Mark Twain."

Again we bid good-bye and say hello. So long, pig-skin. Howdy, puck. Phil J.

PHI LAMBDA UPSILON

Honorary Chemical Fraternity



In 1899 the honorary chemical society, Phi Lambda Upsilon, was founded by the senior chemistry students at the University of Illinois. The aims of the founders of the fraternity included the installation of chapters of the society in other institutions with the object of promoting high scholarship and original investigation in all branches of pure and applied chemistry. This policy was followed and to date charters have been granted to twenty-eight active chapters and one alumni chapter. The total membership is approximately four thousand.

Omicron chapter of Phi Lambda Upsilon was installed at Armour Institute in 1920. The founding of the chapter was due, primarily, to the efforts of two members of the faculty, Professor C. A. Tibbals and Mr. F. C. Smith. Mr. F. C. Smith was an instructor in chemistry at that time. Both of these men, having been members of Phi Lambda Upsilon in their collegiate days, thought it proper that Armour should have a chapter. The two organized a group from the Junior and Senior classes and petitioned for a charter which they were successful in obtaining. Among the original members were Professors H. McCormack and W. J. Bentley, who was then a student.

Election

The election of students to mem-

bership in Phi Lambda Upsilon takes place at the beginning of each semester. The members of the Junior and Senior classes in chemical engineering and the member of the sophomore class having the highest standing are eligible.

The basis of election is scholarship, which is determined by averaging all grades, giving the chemical grades twice the weight of the others. No minimum average is established, this being governed by the average of the class. The vote on scholarship must be unanimous. The personality of the candidate must also be considered. Just how personality should be weighed is described by an extract taken from the National President's address, 1913, "Personality should be considered only in so far as it pertains to good habits, neatness, and honesty—all requisites of a good chemist." A three-fourths vote on personality is necessary.

The emblem of the society is a key, the general shape of which is hexagonal. This shape is to represent an important type of organic compounds, i. e., the aromatic series. On the outer band of the emblem is represented the formula of ortho-bromo-toluene as a typical aromatic organic compound. The pledge ribbons are also appropriate of the purpose as they are the red and blue colors of litmus.

The chapter is meeting regularly and its social program includes a number of smokers and a banquet.

In order to create interest in the aims for which the society stands, a handbook of Chemistry and Physics is awarded every year to the Freshman of the chemical class who has the highest standing, scholastically.

The faculty members of Phi Lambda Upsilon are Professors H. McCormack, C. A. Tibbals, W. J. Bentley, and Mr. D. S. Ullock.

FRATERNITY NOTES

BETA PSI

Beta Chapter held a radio dance at the house Wednesday, November 26. Many of our Alumni were present to enjoy the evening.

Beta Chapter announces the pledging of Stanley F. Patla, C. E. and Elmer S. Wegner, M. E.

DELTA TAU DELTA

The annual House Formal was held Saturday, November 13. This dance is being given especially for the Alumni.

TRIANGLE

Pledge A. Nargie '34, has been confined at Mercy Hospital since Monday, December 1. His collar bone was broken during a basketball game in the school gymnasium. Nargie is expecting to go home tomorrow.

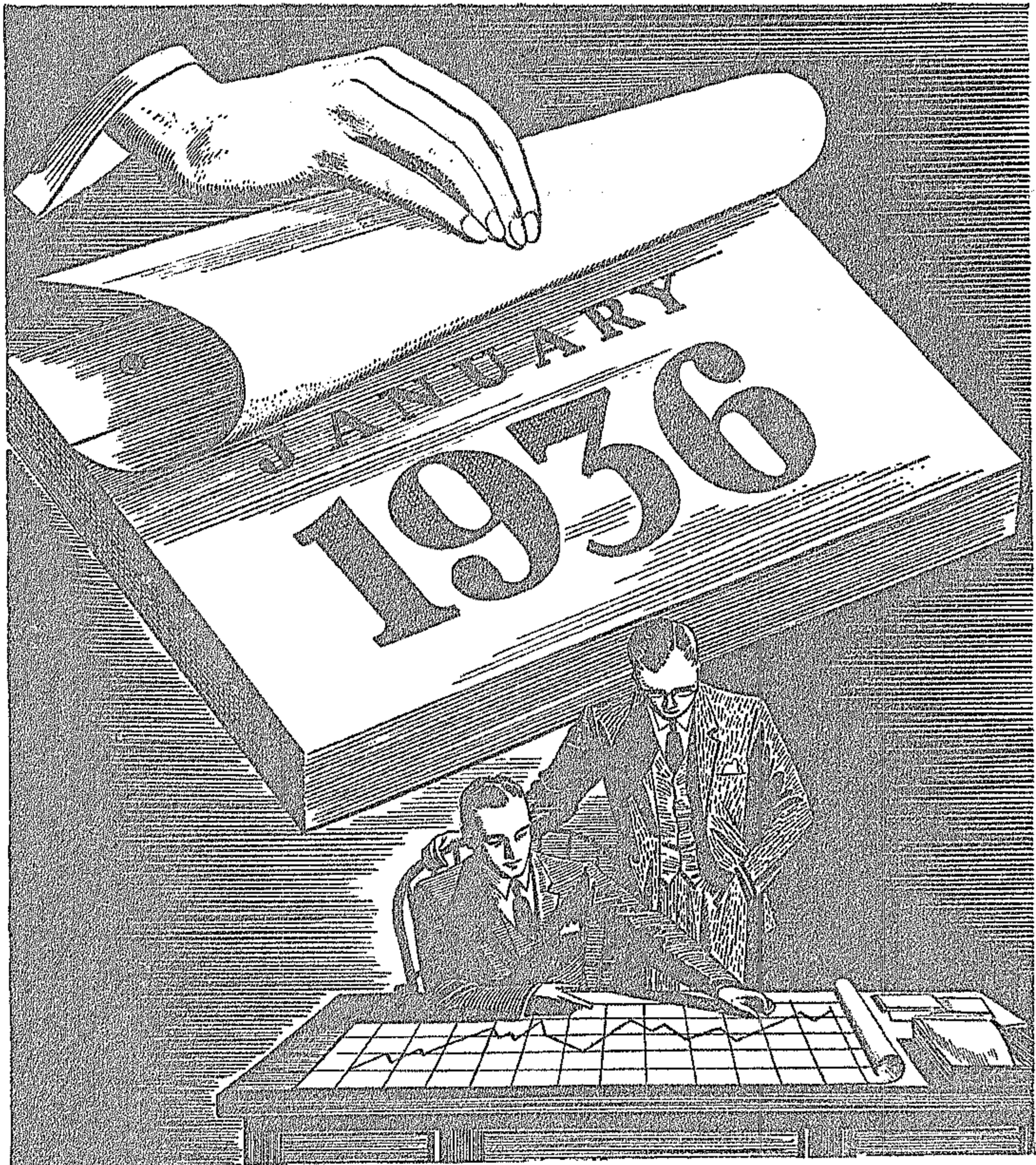
Some of the Alumni who have visited us during the past two weeks are: Norman Beggs, '22, vice president of the National Council; Bill Swanson, '29, and Carl Franks, '28, both of Minnesota; Earle Benson, '25; Henry Christiansen, '29; Martin Vander Velde, '30; and Roland Spencer, '30.

Lawrence Crawford, '29, of Purdue; Harold Wahlstrand, '30, and Lloyd Lamping are living at the House.

The active members of the chapter are I. B. Lehman, president; M. Izaguirre, vice president; F. B. Attwood, secretary; H. Z. Martin, treasurer; I. Drell, and L. J. Ferguson.

Men pledged this fall are J. O. Cavanagh, R. H. Blom, E. Field, and W. A. Holland.

STEPPING INTO A MODERN WORLD



Charting tomorrow's telephone needs

Looking ahead — laying a firm foundation for tomorrow's telephone service — has long been a keystone policy of the Bell System.

To illustrate: business starts creeping into a residential district — a sign that greatly increased telephone facilities will be required. Through intensive studies, commercial engineers forecast the needs

of five or more years hence with scientific accuracy. Additional exchanges, cable ducts, equipment of all kinds are planned and built. When the call comes the telephone company is ready.

So long as the nation continues to change and grow, the plotting of its future telephone needs will never grow dull. *The opportunity is there!*

BELL SYSTEM



NATION-WIDE SYSTEM OF INTER-CONNECTING TELEPHONE

News of Prominent Alumni

E. W. HOTCHKIN, '10, NOW WESTERN MANAGER
Mr. E. W. Hotchkin, '10, an alumnus of Armour Institute of Technology, has been appointed western manager of the Royal and Queen Insurance Company. Mr. Hotchkin started at the Institute in 1904, stayed away for two years, and then graduated as a F. P. E. in 1910. He started work as assistant secretary of the Continental Insurance Company. He was with the Royal Insurance Company until lately. He has now been promoted to the position of western manager of the Royal and Queen Insurance Company. His headquarters are in New York, although he is the western manager of the firm.

A. S. HANSEN, '26, MARRIED
Unofficial announcement of the marriage of A. S. Hansen, '26, was received through a picture in the Friday morning paper, following Thanksgiving Day. The following article accompanied the picture:
"HOLIDAY BRIDE—Arthur S. Hansen and his bride, Alice Charlotte Hansen, after their wedding yesterday at the Hamilton Club, of which Mr. Hansen is a member. The service was conducted by the Rev. S. Hawkinson."

Hansen formerly was an instructor in mathematics here at the Institute, and at the present time bears the title "Financial Engineer."

John Tarman, '30, and Charles Morris, '30, are both employed in the Research Dept. of Armour and Company.

J. J. Doheny, '27, teaches trigonometry and chemistry at St. Mel High School. He is working on a chemical engineering problem at Tech now, in hopes of obtaining an advanced degree.

Harry Krieger, '28, is now located in Columbus. Harry is with the Ohio Inspection Bureau.

Rifle Team Humbles Boston Tech in Meet

(Continued from page one)
days which was crowded with exams. The weighty subjects on the minds of the sharpshooters it seems took some of the clarity out of their eyes.

One of the outstanding achievements of the three-match series with the New York Stock Exchange was the crowning of a club champion. The standing for the championship is as follows:
Champion.....S. J. Patla
Second.....A. H. Helmick
Third.....D. J. Wilson
Fourth.....L. Hackley

The scores of the four highest men in order were: 1130, 1116, 1115 and 1054.

The rifle club has nearly finished its drive for new members. The club has a membership of thirty-seven men at the present time. They are holding a meeting tomorrow to decide a matter of especial interest to the men in the club and the school as well.

A meet will be held with the Lane Technical High School just before the Midwinter Reces. Also a match has been tentatively arranged with the girl's rifle team representing Northwestern University.

C. M. LARSON, '13, ADDRESSES A. S. M. E.
C. M. Larson, '13, addressed the annual convention of the A. S. M. E. held in New York City, December 1-5, 1930, on the "Evaluation of Steam Turbine Oil Stability." Mr. Larson is at the present time Supervising Engineer of the Sinclair Refining Company. After his graduation from Armour he became a lubrication engineer with the Texas Company, and later became the chief engineer of the Chicago District. At the time of the world war he held the office of Wing Lubrication Engineer, 1st Lieut., Air Service, U. S. Army. He joined the Sinclair Company in 1919. Professor Daniel Roesch was present at the meeting when Mr. Larson delivered his address.

John Hommes, '29, founder and first editor of the Tech News, visited school just before the Thanksgiving Holidays and told of unofficial alumni association at Louisville, Ky. Some of the boys down there are Kent Parker, '28; Mac Horn, '28; Dave Smith, '30, and Dick Langan, '28.

The engagement of Oscar M. Pinsof, '29, to Miss Ruth Lillian Goldman of Cleveland has been announced.

Harley (Moon) Mullins, '30, dropped around last week with his traditional derby. "Moon" is with the Michigan Inspection Bureau, and is stationed at the present time at Kalamazoo.

Jerome Goldstein, '23, recently announced his engagement to Miss Mary Rose Greenstone.

Another famous derby visited the Institute last Thursday. This was worn by none other than J. J. (Nap) Kara, '30, former track star. "Nap" is doing research work in Clearing for the Metalwood Company.

Campus Club Alumni Elect New Officers

The fall meeting of the Campus Club Alumni Association was held Tuesday, December 2, at the Allerton House. The meeting was held primarily to elect officers for the ensuing year and to discuss matters of importance in regard to the future plans of the organization.

The election of officers marks a change in the form of organization from that previously used; the association having been formerly governed by a committee of five.

The officers elected are:
A. J. Frost, '30—President.
H. Stebbins, '30—Vice President.
G. L. Freund, '29—Secretary.
C. S. Jones, '28—Treasurer.

The Alumni Association acts in an advisory capacity to the Armour Campus Club. Plans were discussed to place before the student body the purpose of the Club, which is to provide a place of gathering for all the students. It is felt that too many of the students have a misconception of the Club, thinking it to be more or less an exclusive organization. It is planned to dispel this view.

SAFETY KEYNOTE OF W. S. E. TALK ABOUT AVIATION

"The present day aeroplane is safe," was the keynote of the talk given at the W. S. E. meeting Thursday, December 4th, by Mr. T. Wolfe, district manager of the N. A. T. lines.

Development Reviewed
Mr. Wolfe traced the development of transportation from the crudest form to the latest attempts of Fritz Opel's propulsion by means of quickly expanding gases.

An interesting comparison was made by him of the speeds possessed by man, animals, birds and the man-machine combination. Paavo Nurmi established a record of fourteen and one-half miles per hour over a sixty-four mile stretch; the gazelle attains a speed of sixty-four miles per hour on the sands of the Gobi desert, and the swift swallow is credited with one hundred thirty-four miles per hour. In reference to the man-machine combination, the late Maj. Sea-grave of Great Britain established an automobile speed record of 231 miles per hour, and another Englishman reached a speed of 357 miles per hour in an aeroplane.

Fresh Talent Needed
The speaker pointed out unusual possibilities in the air transportation field for real engineering talent. To date most of the designs have been carried on by guess-work by men who have grown up with the industry.

The lecture was part of the W. S. E. program on types of transportation.

Arx News

Albert DeLong reports that he enjoyed the Scarab convention in Charlottesville, Va., on November 24, 25 and 26 very much. He attended as Armour's delegate.

The Burnham Library announces its subscription to some new foreign magazines. Among them are: Die Pyramide, Der Baumeister and Inner-dekoration.

The Thanksgiving holidays brought a great influx of visitors to Chicago. The University of Illinois was well represented by the group that congregated in the Burnham Library of the Art Institute, most of them to do some History of Architecture research work.

Among the visitors were some former Armourites as Martin Braun, Joseph Lundy and others.

While not necessarily an architectural announcement, the following will be of interest to dog lovers. Marguerite Kirmse has the Second Exhibition of Etchings and Drawings of Dogs at the galleries of Carson, Pirie, Scott & Co., from November 25th to December 26th. They are worth your attention.

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Students Lecture on Communication

Student talks dealing with two methods of international communication were featured at the last meeting of the Armour branch of the A. I. E. E., held on December 1.

Donald M. Fetterman of the Senior class, gave a talk on Submarine Telephone and Telegraph Cables. He described some of the problems encountered due to the high capacity of the cables and the tremendous hydrostatic pressures encountered on the ocean bottom. The system employed to counteract these effects and the contemplated trans-Atlantic telephone cable were thoroughly explained.

The talk on Radio Beam Transmission by Morton Fagen of the Junior class proved to be intensely interesting despite the highly technical nature of this topic. The historical background, telling of the somewhat fruitless efforts in the past was strikingly contrasted with the phenomenal results obtained with modern operation.

With this system it has been found possible to maintain perfect communication for 24 hours daily over distances half way 'round the earth, such as from England to Australia. Transmission speeds of 100 to 300 words per minute are used by means of automatic receiving and transmitting equipment.

The high efficiency of the directional system is the immediate effect of concentrating the power sent out in a narrow beam directed at the receiving point.

The instructors in English department of Indiana University who own Ford cars have formed an English Department Ford Club.

F. P. E's See Terra Cotta Manufactured

The entire Junior F. P. E. class visited the plant of the Northwestern Terra Cotta Company, 2525 Clybourne Ave., last Wednesday afternoon. Professor Schommer, who was in charge of the inspection trip, entertained the students on the way to the plant with his famous football stories.

After arriving at the factory about two o'clock, the members of the group were shown the complete cycle of the manufacture. The trip was conducted by Mr. Singer, who gave a very satisfactory and interesting explanation of the method by which Terra Cotta is manufactured. The men were shown the process from drafting room to finished product.

This company is the largest of its kind in the United States. Various types of decorative tile are moulded from clay and baked in immense ovens, which are four hundred feet long. Then some of

Character will be the first essential of students selected for the proposed Lincoln University to be built in Westchester County, New York.

We're mad at fortune tellers. One told us we would receive several interesting letters, and we rushed home and were served alphabet soup.

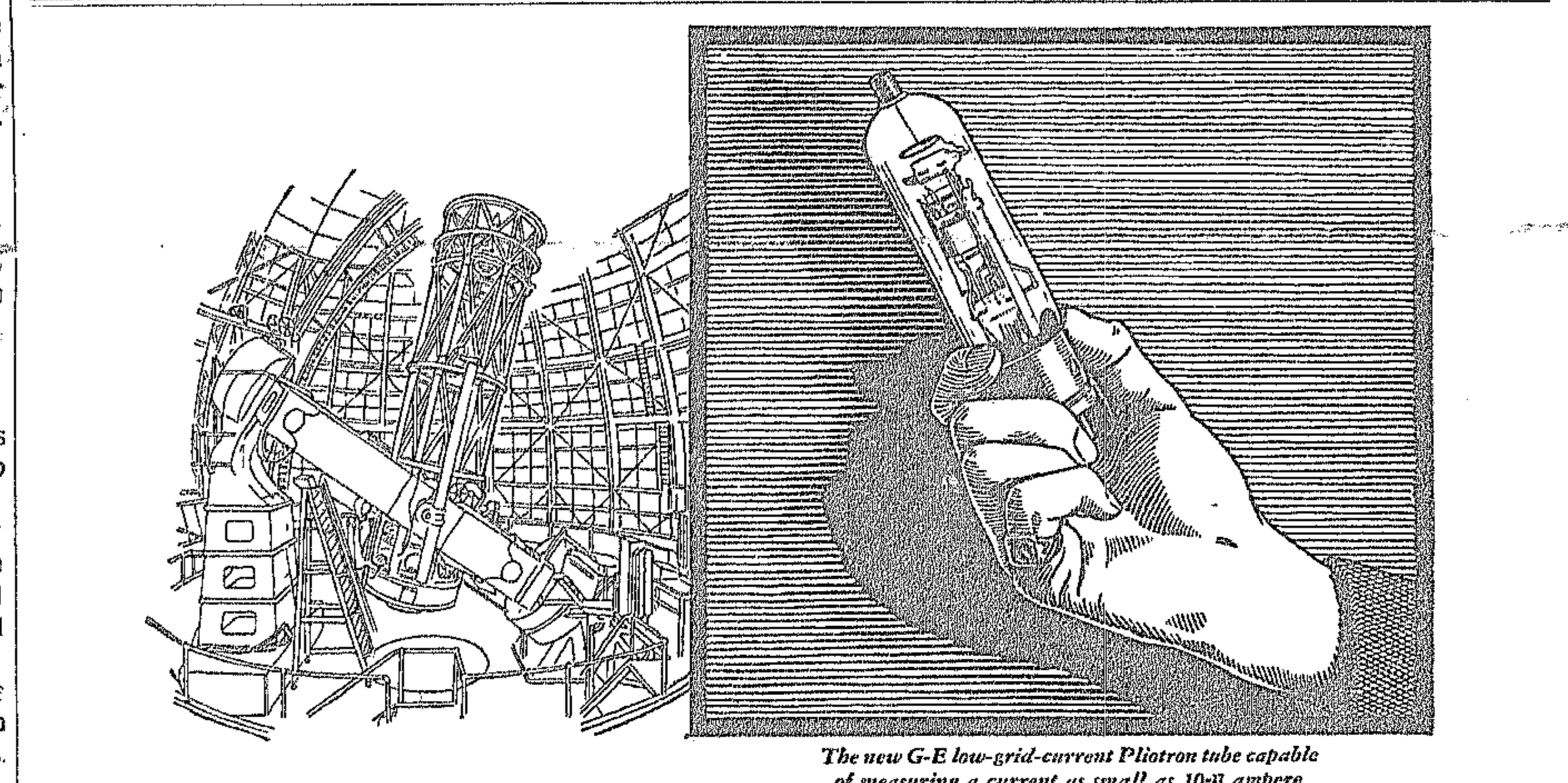
the products are colored by the use of pressure sprays.

The inspection of the clay driers, the batch kiln, and the continuous tunnel kiln proved a valuable supplement to the theoretical knowledge which the students receive at school.

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The new G-E low-grid-current Pliotron tube capable of measuring a current as small as 10⁻¹¹ amperes

This Little Tube Measures Stars Centuries of Light Years Distant

BY MEANS of a new vacuum tube called a low-grid-current Pliotron tube, astronomers can gather the facts of stellar news with greater speed and accuracy. In conjunction with a photoelectric tube, it will help render information on the amount of light radiation and position of stars centuries of light years away. It is further applicable to such laboratory uses as demand the most delicate measurement of electric current.

So sensitive is this tube, that it can measure 0.000,000,000,000,001 of an ampere, or, one-hundredth of a millionth of a billionth of an ampere. This amount of current, compared with that of a 50-watt incandescent lamp, is as two drops of water compared with the entire volume of water spilled over Niagara Falls in a year.

General Electric leadership in the development of vacuum tubes has largely been maintained by college-trained men, just as college-trained men are largely responsible for the impressive progress made by General Electric in other fields of research and engineering.

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FIRST MEETING OF TRACK TEAM WELL ATTENDED

More Needed to Compete in Field Events of Meets

PAST RECORD GOOD

Twenty-four men responded to the first call for track men at a meeting held last Wednesday afternoon in Science Hall. Coach A. A. Stagg, Jr. and Captains H. L. Fox and F. M. James gave short talks of welcome to the new men.

Stagg's Fifth Year

This is Coach Stagg's fifth year at Armour. At that time five years ago there was very little track timber, but each year has offered better conditions and better teams. Last year's indoor track team compiled the best record in the history of any Armour athletic team. Five dual victories, and a first place in the Annual Armour Invitational track meet in which thirteen colleges in the middle west competed comprised the indoor season last year.

Major and Minor Awards

Major and minor letters are awarded by the recommendation of Coach Stagg. "Minor Letters" were instituted three years ago, and are given to those who have not the best ability for running, but are good stickers and place in the different meets. Major awards are given to the men who repeatedly take places in the meets, and have good "performances in their respective events."

May Practice at Armory

Indoor practice this year will either be held at Bartlett Gymnasium or at the new 124th Field Artillery Armory at 5200 Cottage Grove Avenue. The latter building, dedicated last week, is 115 yards long and 150 feet wide. The girders are 94 feet above the level of the floor, and the seating capacity is approximately 6,000 people.

Four Meets and Invitational

This season there are to be four indoor dual meets besides the Third Armour Tech Invitational Meet, at which about fifteen colleges annually compete. The outdoor meets will begin at the close of the indoor season. Dual meets will probably be held with Chicago Normal, Wheaton, Y. M. C. A. College, Lake Forest, and Crane Junior College.

All men wishing to try out for track can secure lockers and shoes at Bartlett Gym. There is still a shortage of men in the field events which cannot be overcome by the excess of track men.

George Jennings Adds to His Tennis Honors

George Jennings, ex '30, again comes into the limelight as a tennis star. He was rated second only to George M. Lott in the recent city net ranking for the 1930 season.

In the doubles competition, Jennings and Gordon Braudt, former University of Illinois star, top the rating for the second consecutive year.

Five new drinking fountains are being installed in the main building. These are of the latest type construction recommended by health authorities. When the installation is completed, there will be one unit on each floor of the main building.

Fraternity Cage Tourney Resumed

On Thursday of this week Armour's ten social fraternities will again resume their annual inter-fraternity basketball tournament. By that time all of the teams will have completed their practice schedule, which afforded each team one practice session in the school gym. Some of the teams had extended their preparatory program to practice games with outside teams.

Two games are scheduled for Thursday. Other games will follow on December 12, December 16, and December 17. The wind-up between the leaders of the two five-team divisions will take place on December 18.

In the past twelve years the prize trophy has been in custody of the Phi Pi Phi house. As a result of their chain of victories, they have obtained permanent possession of four cups. To win a cup a team must win the inter-fraternity championship for three consecutive years.

Swimmers Plan to Better Old Records

To display a clean, victorious record, is the ultimate goal of the mermen this fall. The fact that Coach McGillivray's men emerged victorious in 5 out of 8 skirmishes last season, will give impetus to their fiery determination.

The three set-backs which were administered by the South Chicago Y. M. C. A., Crane College and Culver, were hair splitting decisions and were no discredit, as these squads were composed of championship caliber.

The results as viewed from the standpoint of points scored are more gratifying. The Tech team garnered an aggregate number of points far in excess of that won by their opponents, the totals being, Armour 290, Opposition 219.

In the two meets with Crane, the West Siders were set back to the tune of 39 to 36 in the first, but won by the exceedingly slim margin of one point in a return engagement.

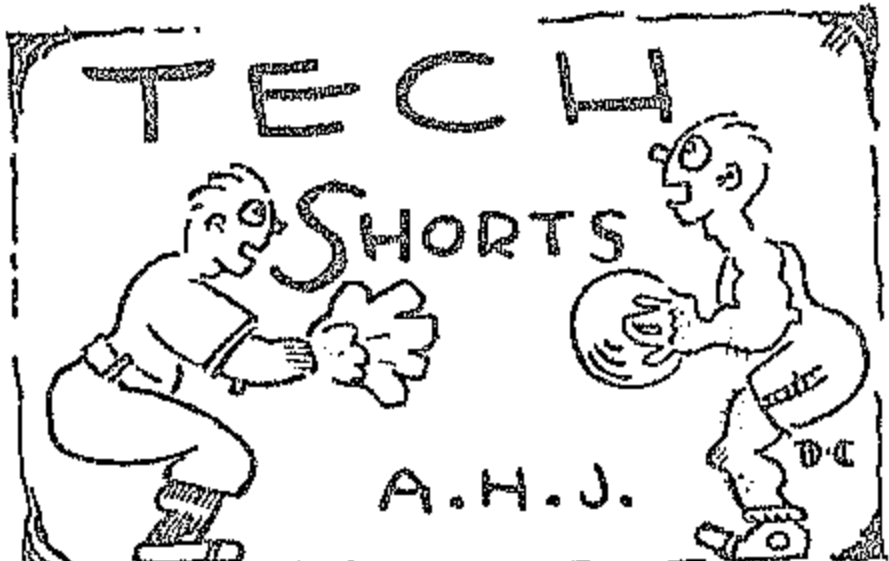
Others Reluctant to Meet Our Pugilists

With the well balanced squad eager to display its wares, Coach Weissman has not given up hope of ushering in the 1930 boxing season with a series of bouts in our own ring, before the holidays. Extreme difficulty is being experienced in negotiating with rival aggregations for an engagement at home. A meet at 5 P. M. which is the logical time to hold the bouts, is met with general objection on the grounds that it is inconvenient. These home meets are preferable as they will stimulate interest in the sport.

It is rumored that there is a reluctance on the part of several local Y. M. C. A.'s to fight our men. The reputation of our scrappy squad must be wide spread, as Manager Cannon states that in several cases he has received weak excuses in answer to offers of competition.

Coach Weissman states that he hopes to bring up Messrs. Foyer and Tanzy, both of whom are known in pugilistic circles as "Kid." They will offer invaluable advice on the various aspects of training.

A promising process of welding copper has been developed from recent research.



Alumni vs. Varsity

Basketball has moved into the limelight of the sport calendar with the varsity games attracting considerable attention. This very evening Mr. Kraft's varsity squad meets the Alumni in the annual Alumni-Varsity game. From past records a close game should result for the Alumni are especially strong in the guard positions.

Hofer Is Tough

With Vic Hofer and perhaps Will Kuffel guarding the basket the varsity will be forced to use their long range guns. Oh, yes, we shouldn't forget to mention that Manager Otto Kuehn and Captain Downes will do duty as forwards with Shoemaker and Wittie to alternate at the center position.

In the game last year Otto's team committed no less than 18 fouls. The varsity conveyed 17 of these into scoring markers. Seven baskets as against 10 by the varsity were hooped by the one-time undergrads.

A Poke and a Check

What do you know? Some ice bug is attempting to organize an ice hockey team. It'll be poke checking instead of double checking when this idea finally works out.

115 Up and 115 Back

A track meeting with Coach Stagg as chairman brought forth a wealth of new material to take the places of Paul, Sturm, and Kara. Equipment was issued to some twenty odd men who expressed their in-

Armour Soon to Have Hockey Aggregation

A new sport is soon to make its debut at Armour. A group of men interested in forming an ice hockey team met in Science Hall last Friday noon in order to definitely work out the details of the plan. About twenty-five men, enough for four complete teams, were present. At the meeting the men decided to hold team practice at the Midway Hockey Rink on Wednesday nights and Saturday afternoons whenever there is ice. Some of the candidates hail from the northern clime of Canada where hockey is the national sport.

O. T. Barnett, temporary manager, and P. W. Bestler, the instigators of the plan, are making arrangements with the South Park Commissioners for the use of the rink. Any men interested in the new project may get further details from either of these men. A meeting has been scheduled for the week preceding the Christmas Holidays in order to frame a more intensive practice schedule for that period.

tention of doing or dying for dear old Tech. Some real news was uncovered when it was announced that the new 124th Field Artillery Armory will be available for practice shortly. The Armory has a straightaway stretch of 115 yards.

Basketball As Is

If you care to see basketball as it should be played we recommend the forthcoming inter-fraternity tournament. Thrills, chills and excitement are supplied by the wholesale in these hectic contests.

Professor Schommer tells us that Richard E. Meagher has been appointed manager of the 1931 golf team.

Basketeers Win First Cage Tilt

In the past week Coach Kraft put his varsity basketball squad through two scrimmages. On Monday The Bakelite Corporation provided the opposition while on Tuesday the University of Chicago staff mixed with the Armour team in a lengthy session.

Armour emerged victorious 33-24 in the first tilt. This scrimmage was termed more or less as a practice game, but the Bakelite Corporation presented an organized team and took the game seriously.

Coach Kraft's opening line-up in the Bakelite game comprised of Robin, Link, Rossing, Rutkowski, and Miran. After several minutes of playing Kraft sent in other members. Gustafson, Lind, Ott, Beemsterboer, MacLennan, Kulkowski, and Omiecinski were given an opportunity to display their talent.

The University of Chicago scrimmage ended 32-20 in favor of Chicago. Chicago used 16 men in their line-up while Armour confined itself to eight. Moskowitz, Lind, Ott, Miran, Rossing, Beemsterboer, Gustafson, Kulkowski, Rutkowski and Omiecinski figured in the Armour line-up.

Aviation Talk Given at W. S. E. Meeting

A meeting of the Armour Branch of the American Society of Mechanical Engineers was held in Science Hall yesterday at 11:30. Mr. C. B. Cole, President of the Chicago Division of the Society, delivered an address on "Aviation." He pointed out the many and varied applications of the principles that concern the Mechanical Engineer in this field.

Gridiron Queries

By Professor John J. Schommer

Editor's Note: Professor John J. Schommer, star player, conference umpire, and leading football authority, will answer through this column, any questions on football which are puzzling our readers. Questions may be submitted to the Sports Editor, H. P. Richter, or they may be placed in the Armour Tech News box, which is located in the main building adjacent to the elevator on the first floor.

Question 32. What action is taken on the playing field after a team is awarded a safety?

Answer—The team scored against must kick from their 20 yard line.

Question 33. Offensive team A passes the ball which is intercepted by B. Umpire, simultaneously, blows horn, claiming that Team A was offside. What is the referee's ruling?

Answer—Team B has the option of taking the result of the play or the distance of the penalty.

Question 34. Offensive team A throws a pass which is intercepted by B of defensive team who catches it out of bounds. Is the pass termed incomplete or does the defensive team take possession of the ball at the point where it went out of bounds?

Answer—The pass is incomplete.

Question 35. Is a ball carrier ruled out of bounds if his tracks indicate that he had just touched the white line?

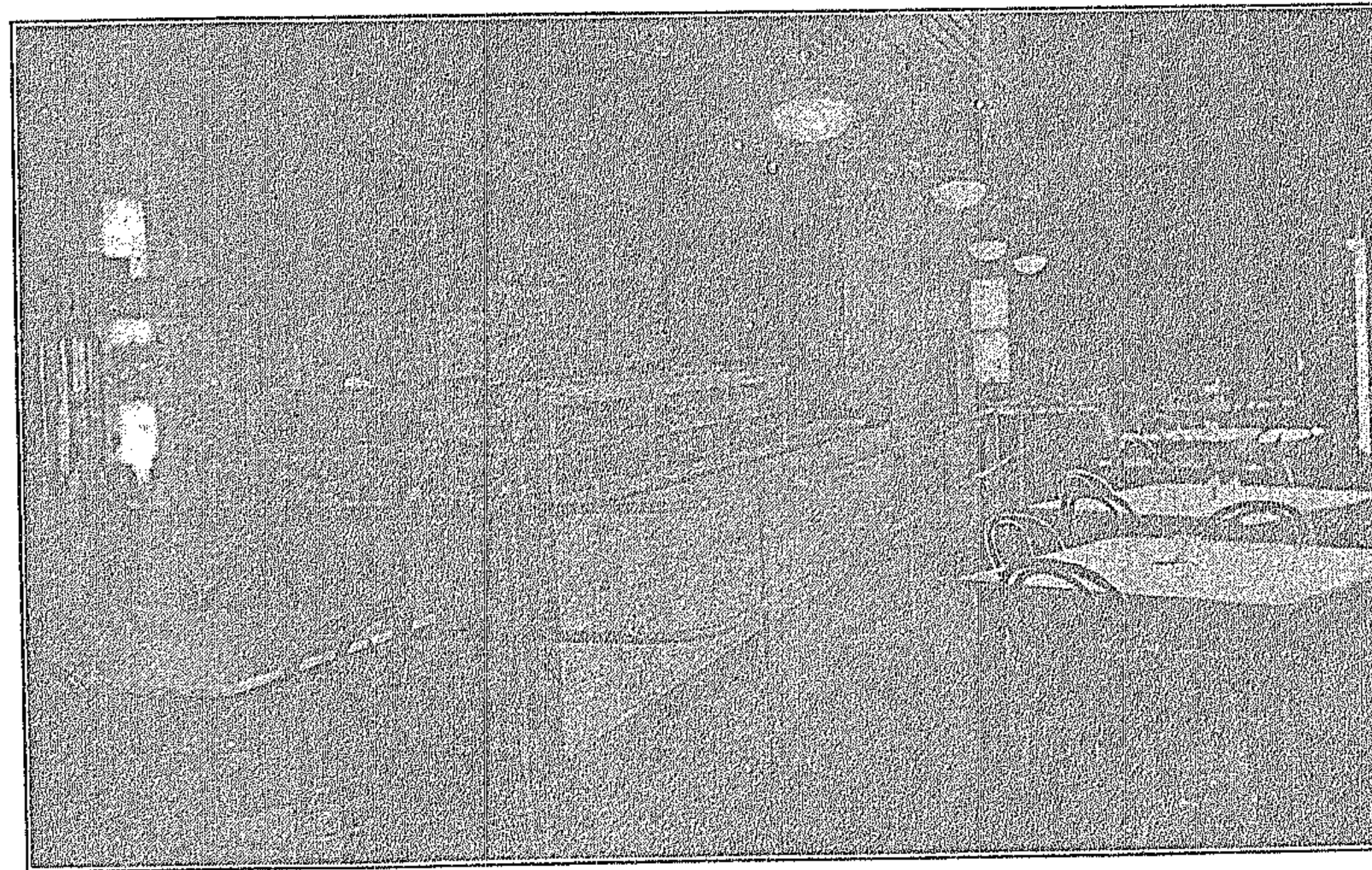
Answer—Yes.

Question 36. Player of Team B intercepts a pass and begins to run for a touchdown. One of the members tackles him, simultaneously the ball is fumbled. Is it a free ball?

Answer—Yes. Team B can only recover. Team A, however, may recover and advance the ball.

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